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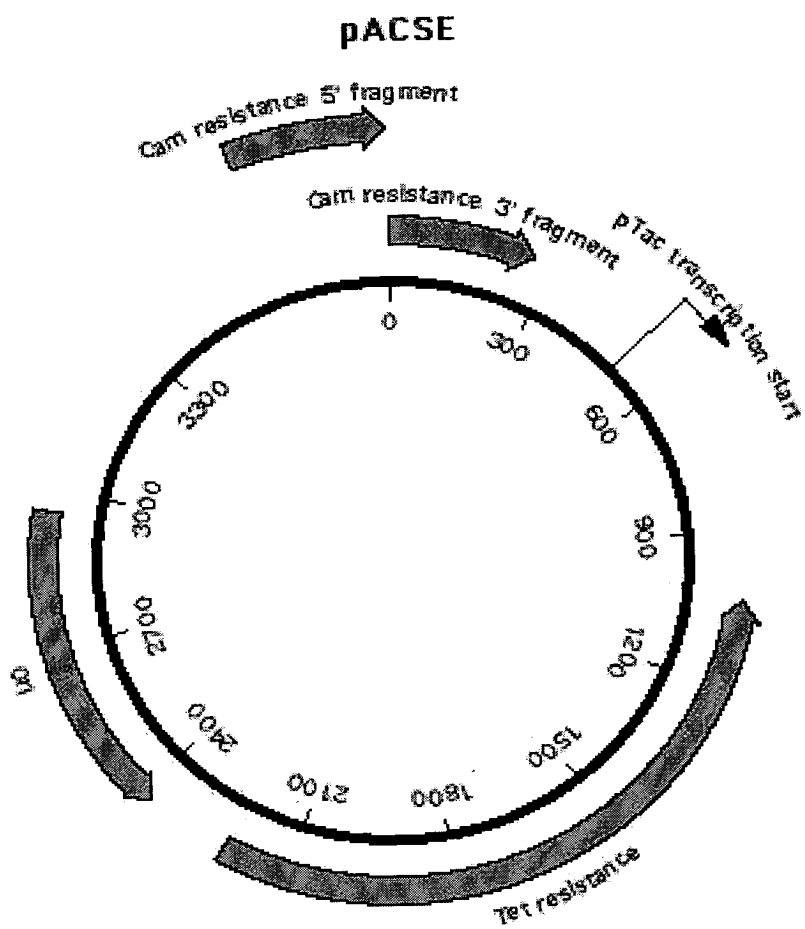


Figure 1

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 181 TTCCCTAAAG GGTTTATTGA GAATATGTTT TTCGTCTCAG CCAATCCCTG GGTGAGTTTC  
 241 ACCAGTTTTG ATTTAAACGT GGCCATCATG TTTGACAGCT TATCATCGAC TGCACGGTGC  
 301 ACCAATGCTT CTGGCGTCAG GCAGCCATCG GAAGCTGTGG TATGGCTGTG CAGGTGCTAA  
 361 ATCACTGCAT AATTCGTGTC GCTCAAGGCG CACTCCCGTT CTGGATAATG TTTTTTGCGC  
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 781 GGCGGCCCGC TGCAGCTGGC GCCATCGATA CGCGTACGTC GCGACCGCGG ACATGTACAG  
 841 AGCTCGAGAA GTACTAGTGG CCAGGACCCA ACGCTGCCCC AGATGCGCCG CGTGCGGCTG  
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 1021 CGGCTTCCAT TCAGGTCGAG GTGGCCCCGGC TCCATGCACC GCGACGCAAC GCGGGGAGGC  
 1081 AGACAAGGTA TAGGGCGGCG CCTACAATCC ATGCCAACCC GTTCCATGTG CTCGCCGAGG  
 1141 CGGCATAAAT CGCCGTGACG ATCAGCGGTC CAGTGATCGA AGTTAGGCTG GTAAGAGCCG  
 1201 CGAGCGATCC TTGAAGCTGT CCCTGATGGT CGTCATCTAC CTGCCTGGAC AGCATGGCCT  
 1261 GCAACGCGGG CATCCCGATG CCGCCGGAAG CGAGAAGAAT CATAATGGGG AAGGCCATCC  
 1321 AGCCTCGCGT CGCGAACGCC AGCAAGACGT AGCCCAGCGC GTCGGCCGCC ATGCCGCGCA  
 1381 TAATGGCCTG CTTCTCGCCG AAACGTTTGG TGGCGGGACC AGTGACGAAG GCTTGAGCGA  
 1441 GGGCGTGCAA GATTCCGAAT ACCGCAAGCG ACAGGCCGAT CATCGTCGCG CTCCAGCGAA  
 1501 AGCGTCCCTC GCCGAAAATG ACCCAGAGCG CTGCCGGCAC CTGTCCTACG AGTTGCATGA  
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 1921 CGTAGAGGAT CCACAGGACG GGTGTGGTCG CCATGATCGC GTAGTCGATA GTGGCTCCAA  
 1981 GTAGCGAAGC GAGCAGGACT GGGCGGCGGC CAAAGCGGTC GGACAGTGCT CCGAGAACGG  
 2041 GTGCGCATAG AAATTGCATC AACGCATATA GCGCTAGCAG CACGCCATAG TGAATGGCGA  
 2101 TGCTGTCGGA ATGGACGATA TCCCGCAAGA GGCCCCGCGC TACCGGCATA ACCAAGCCTA  
 2161 TGCCTACAGC ATCCAGGGTG ACGGTGCCGA GGATGACGAT GAGCGCATTG TTAGATTTCA  
 2221 TACACGGTGC CTGACTGCGT TAGCAATTTA ACTGTGATAA ACTACCGCAT TAAAGCTTAT  
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 2761 CAGGCGTGGA ATGAGACAAA CGCGGCCATA ACAGCGGAAT GACACCGGTA AACCAGAAAGG  
 2821 CAGGAACAGG AGAGCGCACG AGGGAGCCGC CAGGGGGAAA CGCCTGGTAT CTTTATAGTC  
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 2941 GGAGCCTATG GAAAAACGGC TTTGCCGCGG CCTCTCACT TCCCTGTAA GTATCTTCTT

Figure 2A

3001 GGCATCTTCC AGGAAATCTC CGCCCCGTTC GTAAGCCATT TCCGCTCGCC GCAGTCGAAC  
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 3181 TCAGTGCCAA CATAGTAAGC CAGTATACAC TCCGCTAGCG CTGATGTCCG GCGGTGCTTT  
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 3301 CCACTGGAGC ACCTCAAAAA CACCATCATA CACTAAATCA GTAAGTTGGC AGCATCACCC  
 3361 GACGCACTTT GCGCCGAATA AATACCTGTG ACGGAAGATC ACTTCGCAGA ATAAATAAAT  
 3421 CCTGGTGTCC CTGTTGATAC CGGGAAGCCC TGGGCCAACT TTTGGCGAAA ATGAGACGTT  
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 3661 TCAGTTGCTC AATGTACCTA TAACCAGACC GTTCAGCTGG ATATTACGGC CTTTTTAAAG  
 3721 ACCGTAAAGA AAAATAAGCA CAAGTTTTAT CCGGCCTTTA TTCACATTCT TGCCCGCCTG  
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Figure 2B

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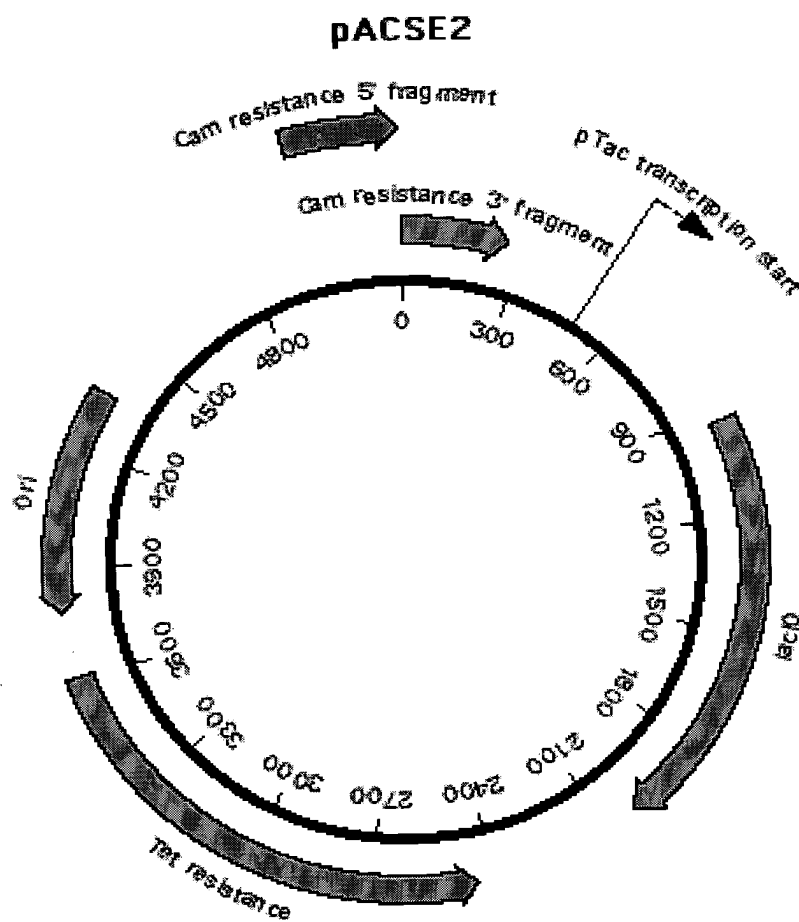


Figure 3

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121 CGGCAGTTTC TACACATATA TTCGCAAGAT GTGGCGTGTT ACGGTGAAAA CCTGGCCTAT
181 TTCCCTAAAG GGTTTATTGA GAATATGTTT TTCGTCTCAG CCAATCCCTG GGTGAGTTTC
241 ACCAGTTTTG ATTTAAACGT GGCCATCATG TTTGACAGCT TATCATCGAC TGCACGGTGC
301 ACCAATGCTT CTGGCGTCAG GCAGCCATCG GAAGCTGTGG TATGGCTGTG CAGGTCGTAA
361 ATCACTGCAT AATTTCGTGTC GCTCAAGGCG CACTCCCGTT CTGGATAATG TTTTTTGCGC
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721 GGTTGTAAAC GTTAGCCGGC TACGTATACT CCGGAATATT AATAGGCCTA GGATGCATAT
781 GCGGCGCGCC TGCAGCTGGC GCCATCGATA CGCGTACGTC GCGACCGCGG ACATGTACAG
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901 GGCATGATAG CGCCCGGAAG AGAGTCAATT CAGGGTGGTG AATGTGAAAC CAGTAACGTT
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2221 TGCGCCGACA TCATAACGGT TCTGGCAAAT ATTCTAGTGG CCAGGACCCA ACGCTGCCCG
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2881 CATCGTCGCG CTCCAGCGAA AGCGGTCTC GCGGAAAATG ACCCAGAGCG CTGCCGGCAC
2941 CTGTCCTACG AGTTGCATGA TAAAGAAGAC AGTCATAAGT GCGGCGACGA TAGTCATGCC

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Figure 4A

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Figure 4B

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 1561 TCGCAATCAA ATTCAGCCGA TAGCGGAACG GGAAGGCGAC TGGAGTGCCA TGTCGGTTTT  
 1621 TCAACAAACC ATGCAAATGC TGAATGAGGG CATCGTTCCC ACTGCGATGC TGTTTGCCAA  
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 2941 CTGTCCTACG AGTTGCATGA TAAAGAAGAC AGTCATAAGT GCGGCGACGA TAGTCATGCC

Figure 5A

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4621 CTGATGTCCG GCGGTGCTTT TGCCGTTACG CACCACCCCG TCAGTAGCTG AACAGGAGGG
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4741 GTAAGTTGGC AGCATCACCC GACGCACTTT GCGCCGAATA AATACCTGTG ACGGAAGATC
4801 ACTTCGCAGA ATAAATAAAT CCTGGTGTCC CTGTTGATAC CGGGAAGCCC TGGGCCAACT
4861 TTTGGCGAAA ATGAGACGTT GATCGGCACG TAAGAGGTTT CAACTTTCAC CATAATGAAA
4921 TAAGATCACT ACCGGGCGTA TTTTTTGAGT TATCGAGATT TTCAGGAGCT AAGGAAGCTA
4981 AAATGGAGAA AAAAATCACT GGATATACCA CCGTTGATAT ATCCCAATGG CATCGTAAAG
5041 AACATTTTGA GGCATTTTCA TCAGTTGCTC AATGTACCTA TAACCAGACC GTTCAGCTGG
5101 ATATTACGGC CTTTTTAAAG ACCGTAAAGA AAAATAAGCA CAAGTTTTAT CCGGCCTTTA
5161 TTCACATTCT TGCCCGCCTG ATGAATGCTC ATCCGGAATT C

```

Figure 5B



09640882.081800

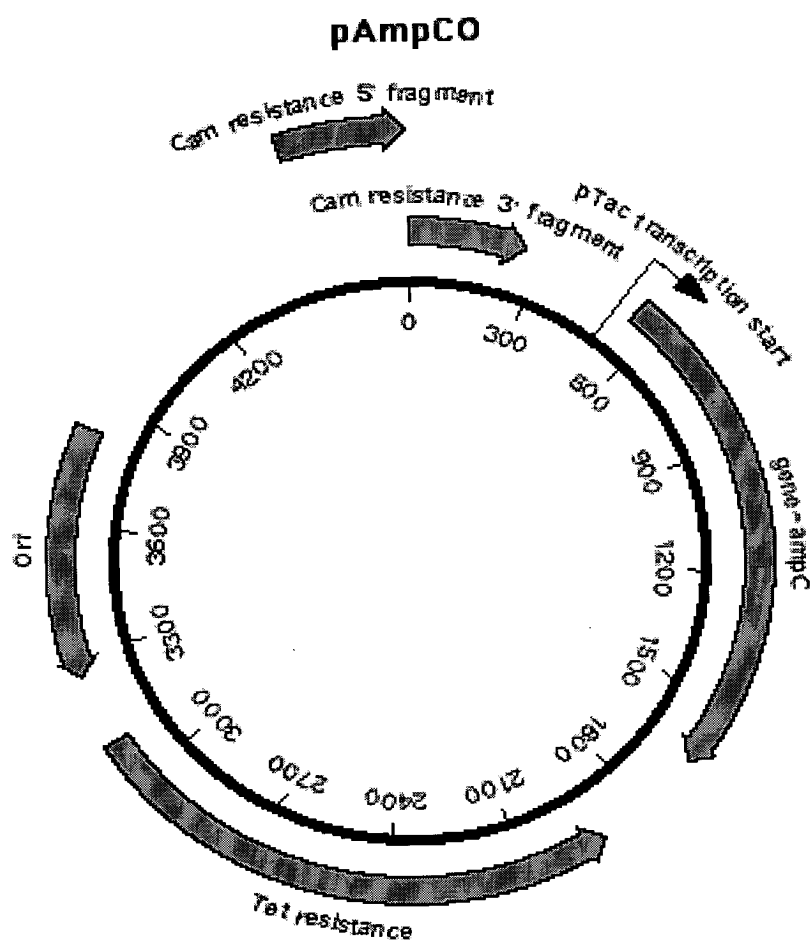


Figure 6

09640882.081.800

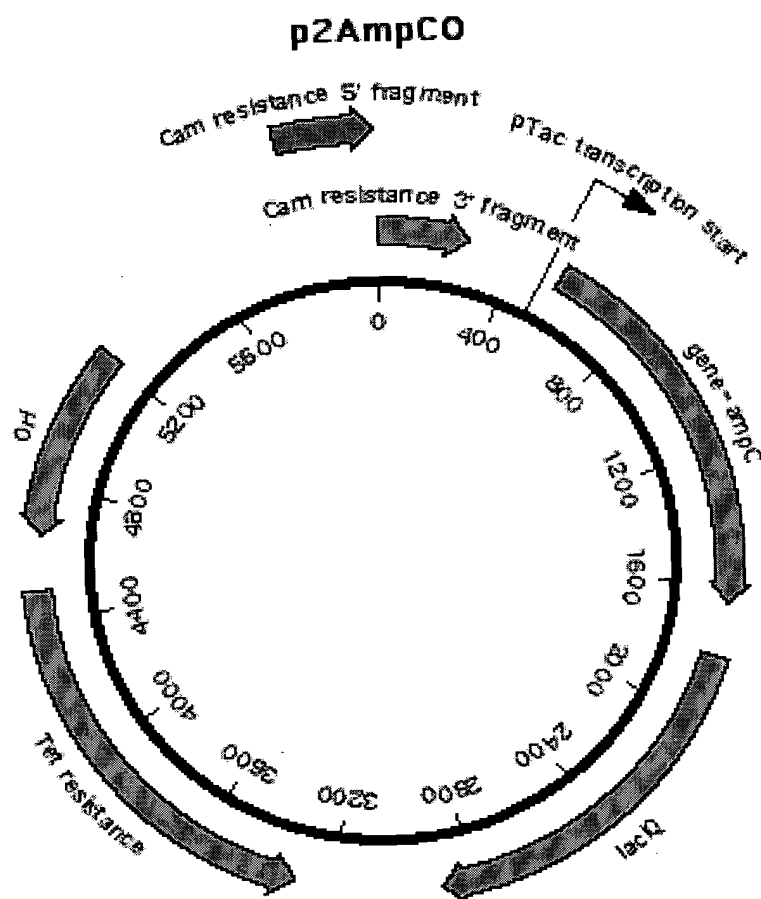


Figure 7

wild-type	ATGGTCAAAA	CGACGCTCTG	CGCCTTATTA	ATTACCGCCT	CTTGCTCCAC	ATTTGCTGCC	60
AmpC13A	.....	.....	....C....	.....	.....	.....	
AmpC41A	.....	.....	....C....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	CCTCAACAAA	TCAACGATAT	TGTGCATCGC	ACAATTACCC	CGCTTATAGA	GCAACAAAAG	120
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	ATCCCGGGTA	TGGCGGTGGC	GGTAATTTAT	CAGGGTAAAC	CTTATTACTT	TACCTGGGGC	180
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	TATGCGGACA	TCGCCAAAAA	GCAGCCCGTC	ACACAGCAAA	CGTTGTTTGA	GTTAGGTTTCG	240
AmpC13A	.....	....T....	.....	.....	.....	.....	
AmpC41A	.....	....T....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	GTCAGCAAAA	CATTTACTGG	CGTGCTTGGT	GGCGACGCTA	TTGCTCGAGG	GGAAATCAAG	300
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	TTAAGCGATC	CCACAACAAA	ATACTGGCCT	GAACCTACCG	CTAAACAGTG	GAATGGGATC	360
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	ACACTATTAC	ATCTCGCAAC	CTACACTGCT	GGCGGCCTGC	CATTGCAGGT	GCCGGATGAG	420
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	T.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	GTGAAATCCT	CAAGCGACTT	GCTGCGCTTC	TATCAAAACT	GGCAGCCTGC	ATGGGCTCCA	480
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	GGAACACAAC	GTCTGTATGC	CAACTCCAGT	ATCGGTTTGT	TCGGCGCACT	GGCTGTGAAG	540
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	CCGTCTGGTT	TGAGTTTTGA	GCAGGCGATG	CAAACCTCGTG	TCTTCCAGCC	ACTCAAACCTC	600
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....G....	.....	
wild-type	AACCATACGT	GGATTAATGT	ACCGCCCGCA	GAAGAAAAGA	ATTACGCCTG	GGGATATCGC	660
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	

Figure 8A

wild-type	GAAGGTAAGG	CAGTGCATGT	TTCGCCTGGG	GCGTTAGATG	CTGAAGCTTA	TGGTGTGAAG	720
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	..G.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.C.....	.....	
wild-type	TCGACCATTG	AAGATATGGC	CCGCTGGGTG	CAAAGCAATT	TAAAACCCCT	TGATATCAAT	780
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	GAGAAAACGC	TTCAACAAGG	GATACAACTG	GCACAATCTC	GCTACTGGCA	AACCGGCGAT	840
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	ATGTATCAGG	GCCTGGGCTG	GGAAATGCTG	GACTGGCCGG	TAAATCCTGA	CAGCATCATT	900
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....G.	.....	...G.....	.....	
wild-type	AACGGCAGTG	ACAATAAAAT	TGCACTGGCA	GCACGCCCCG	TAAAAGCGAT	TACGCCCCCA	960
AmpC13A	.....C..	.....	.....	.....	.....	.....	
AmpC41A	.....C..	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	ACTCCTGCAG	TACGCGCATC	ATGGGTACAT	AAAACAGGGG	CGACCGGCGG	ATTTGGTAGC	1020
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	TATGTCGCGT	TTATTCCAGA	AAAAGAGCTG	GGTATCGTGA	TGCTGGCAAA	CAAAAACTAT	1080
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	CCCAATCCAG	CGAGAGTCGA	CGCCGCCTGG	CAGATTCTTA	ACGCTCTACA	GTAA	1134
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	...C.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	

Figure 8B

wild-type	MVKTTLCALL	ITASCSTFAA	PQQINDIVHR	TITPLIEQQK	IPGMAVAVIY	QGKPYFTWG	60
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	YADIAKKQPV	TQQTLEFELGS	VSKTFTGVLG	GDAIARGEIK	LSDPTTKYWP	ELTAKQWNGI	120
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	TLLHLATYTA	GGLPLQVPDE	VKSSDLLRF	YQNWQPAWAP	GTQRLYANSS	IGLFGALAVK	180
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	S.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	PSGLSFEQAM	QTRVFQPLKL	NHTWINVPPA	EEKNYAWGYR	EGKAVHVSPPG	ALDAEAYGVK	240
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....R.....	.....	.....	.....	.....	
wild-type	STIEDMARWV	QSNLKPLDIN	EKTLQQGIQL	AQSRYWQTGD	MYQGLGWEML	DWPVNPDSII	300
AmpC13A	.....	.....	.....	.....	.....	.....	
AmpC41A	.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....R.....	.....S.....	
wild-type	NGSDNKIALA	ARPVKAITPP	TPAVRASWVH	KTGATGGFGS	YVAFIPEKEL	GIVMLANKNY	360
AmpC13A	..R.....	.....	.....	.....	.....	.....	
AmpC41A	..R.....	.....	.....	.....	.....	.....	
AmpC21B	.....	.....	.....	.....	.....	.....	
wild-type	PNPARVDAAW	QILNALQ*					377
AmpC13A	.....	.....					
AmpC41A	.....	.....					
AmpC21B	.....	.....					

Figure 9

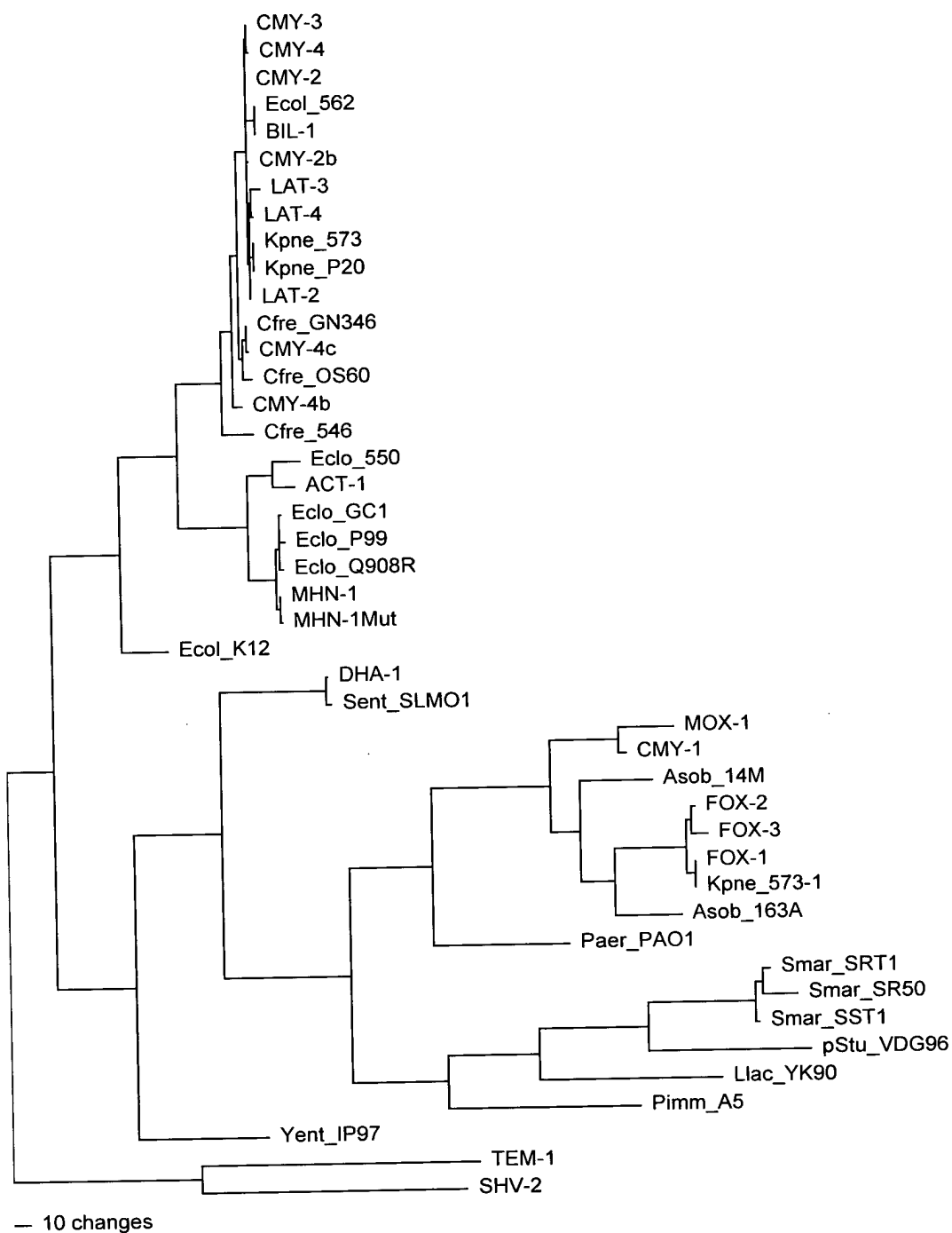


Figure 10

0910331001



**Figure 11**